DOCUMENT RESUME

ED 281 963 UD 025 522

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TITLE Aspects of Migration in an Advanced Industrial Society.

INSTITUTION Wisconsin Univ., Madison. Center for Demography and Ecology.

SPONS AGENCY National Inst. of Child Health and Human Development (NIH), Bethesda, Md. Center for Population Research.
REPORT NO CDE-WP-86-25
PUB DATE 86
GRANT NICHD-5R01-HD-0-5876; NICHD-501-HD-17700-2
NOTE 54p.
AVAILABLE FROM Center for Demography and Ecology, University of Wisconsin, 1180 Observatory Drive, Madison, WI 53706-1393.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Demography; *Educational Attainment; Educational Status Comparison; *Educational Trends; *Migration Patterns; Population Trends; Relocation; *Rural to Urban Migration; *Socioeconomic Influences; Socioeconomic Status; *Trend Analysis; United States History
IDENTIFIERS Industry Role

ABSTRACT

This paper evaluates the hypothesis that patterns of migration within and between the metropolitan and nonmetropolitan sectors and between regions, and migrant/nonmigrant differentials in education attainment during the 1935-1980 period of United States history reflect historical differences in socioeconomic development and settlement patterns. The study focuses on changes that have occurred in metropolitanization and their significance for emerging patterns of population distribution and redistribution. Using data from the Public Use Microdata files from the 1940 and 1980 decennial census and from selected Bureau of the Census publications, it was found that: (1) migration patterns in peripheral areas and core areas have become more similar in the years since the Great Depression due to socioeconomic changes that have eroded the hegemony of the traditional manufacturing belt, affecting migration patterns; and (2) while migrants have higher education attainment than nonmigrants, differences vary systematically with area differences in socioeconomic development. In addition to an explanation and discussions of method and results, the study includes statistical data and a five-page list of references. (PS)

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ASPECTS OF MIGRATION IN AN ADVANCED INDUSTRIAL SOCIETY

Franklin D. Wilson

CDE Working Paper 86-25

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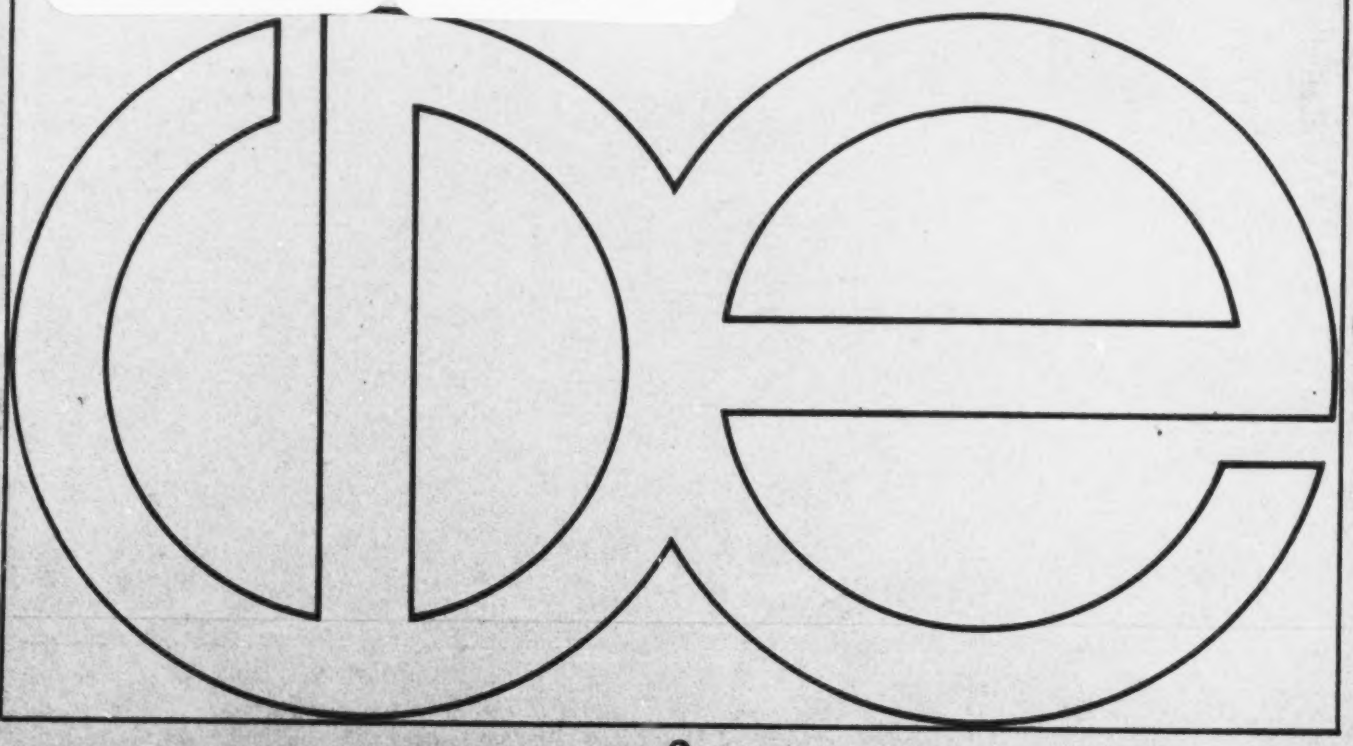

UD 025 522

Aspects of Migration in an Advanced Industrial Society

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*The Research reported here was funded by a research grant from NICHD, Grant No. 5R01 HD 17700-2. Data acquisition and processing were supported in part by Population Research Center Grant No. 5R01 HD-0-5876 awarded to the Center for Demography and Ecology of the University of Wisconsin by the Center for Population Research of the National Institute of Child Health and Human Development. The assistance of Margaret Brandenburg and Brett Brown is gratefully acknowledged. Conclusions and interpretations are solely the responsibility of the author.

Aspects of Migration in an Advanced Industrial Society

Abstract

This paper tests the general hypothesis that patterns of migration within and between metropolitan and nonmetropolitan areas and regions, and migrant/nonmigrant differences in education attainment during the 1935-80 periods of U.S. History are reflective of historical differences in socioeconomic development and settlement pattern. Findings regarding gross migration flows during the 1930-40 period and changes reflected in the 1975-80 period are consistent with the mobility transition hypothesis, giving support to the idea that developmental impulses, operating primarily through the metropolitanization process, structure the context within migration occurs. Transformations in socioeconomic structure of periphery region occurring since the Great Depression clearly indicates the presence of a convergence process, which is eroding the differences between the former and the core region with respect to patterns of migration. Finding also indicates that while migrants have higher education attainment that nonmigrants, migrant/nonmigrant differences in education attainment vary systematically with area differences in socioeconomic development. Specifically migrant/nonmigrant differences in education attainment are (1) similar at origin and destination if both are characterized by similar levels of socioeconomic development; (2) lower at origin relative to destination if the former is higher in socioeconomic development; and (3) higher at origin relative to destination if the latter is higher in socioeconomic development.

Aspects of Migration in an Advanced Industrial Society

Introduction

The Unites States has been characterized as moving into a post-industrial stage of societal development. The social, economic, and political activities of its population are organized around an integrated system of cities that are connected via a variety of linkages, involving the movement of people and goods, and the flow of information and services. Since WWII profound changes have accelerated the integration of all geographical areas, including shifts in the economy from heavy manufacturing and agriculture to tertiary and high technology industries, in which the processing, storage, and transmission of information predominates; technological changes, in production techniques, and in transportation and communication; and the preeminence of the multi-national corporation as the major source of employment growth, innovation, investment activities, and spatial interactions. In a similar vain Noyelle and Stanback (1985: 17-25) notes that during the Post World War II period, the U.S. economy has undergone a number of significant transformations in terms of what is produced, how its produced, where its produced, and how people work.

A number of writers have attempted to relate the new post industrial order to the spatial structure of settlement life and the patterns of population redistribution this structure give rise to (Morrill, 1980; Long, 1985; Weinstein, Gross and Rees, 1985; Noyelle and Stanback,1985; Dunn, 1980; Pred, 1977; Bournes, 1980; Miller, 1977; Zelinsky, 1971 and 1982; Wardwell, 1980; Frey, 1985; Bouvier, et al, 1976; Long, 1981; Richmond, 1969; Williamson, 1965/66; Wilson, 1984; Goldscheider, 1982). A common theme permeating these discussions is the hypothesis that there

is an association between societal development, urbanization/ metropolitanization, and migration. It is suggested that the rate, direction, and character of migration flows are a function of stage of societal development and the system of urban agglomeration associated with a particular stage. Long (1985), for example, suggests that the progress of a society toward higher levels of socioeconomic development provides the opportunity and means for increased interaction, which in turn provides the context within which settlement systems are transformed through population movements.

This paper evaluates several hypotheses regarding the association of migration with metropolitanization and socioeconomic development in an advanced industrial society, such as the United States. First we seek to determine whether metropolitan and nonmetropolitan migration flows within and between regions differentiated by historical patterns of development change as changes occur in settlement patterns and socioeconomic conditions. The development literature indicates that the initial stage of industrialization in the now developed countries was characterized by polarized spatial development where labor and capital became concentrated in a core region. As development proceeded, however, this pattern of urban/regional concentration gave way to a more decentralized pattern characterized by the deconcentration of urban populations within the core region itself, and migration of population from the core as developmental impulses spread to the periphery (see Vining, 1986; Freidmann, 1983; Long, 1981 for reviews). Second, we test whether area differences in socioeconomic and opportunity structures lead to 1) the generation of migration streams that differ in size and composition and 2)

migrant/nonmigrant differences in human capital attributes (see Lee, 1966; Campbell and Johnson, 1976). The assumption underlying the analysis of these issues is that polarized development leads to area differences in the production and utilization of human capital. Migration, in this context, functions primarily as a redistributive mechanism in which an area's stock of human capital changes in response to changing labor requirements. Hence, migrant/nonmigrant and stream differences in composition are manifestations of area differences in socioeconomic and opportunity structures.

Theoretical Background

Zelinsky's (1971) model of the mobility transition is used as a frame of reference in assessing the importance of the issues raised above with respect to population movements during the 1935-1980 period of U.S. History. Zelinsky (1971) makes the following observations regarding the association between migration and modernization. First, the process of modernization leads to a series of population related transitions, including the well known demographic transition in vital rates and the spatial mobility transition. A critical feature of the spatial mobility transition is that the form and intensity of migration changes as the process of modernization moves a society toward more advanced stages of socioeconomic development. Such changes include changes in the function, frequency, duration, periodicity, distance, composition, and origin/destination of migration streams. Second, although modernization trends to promote, during its initial stages, spatial differentials in economic opportunities, these differentials are diminished as advanced stages are reached. The transition to more advanced stages also increases migra-

tion, because it increases the range of alternative locations within which individuals can seek personal fulfillment.

Zelinsky's (1971) discussion of the mobility transition hypothesis focuses mainly on how modernization alters the pattern of migration occurring between rural and urban areas. A similar framework is adapted here, except the focus is on metropolitan and nonmetropolitan areas as geographically distinct functional settlement systems. The difference is a matter of scale of settlement pattern, since both "urban" and "metropolitan" arise out of the urbanization process. As Zelinsky, it is hypothesized that the process of socioeconomic development leads to a series of migration transitions produced by the changing impact of industrialization on urbanization. It is suggested that during the initial stages of modernization/industrialization, the flow of migrants from nonmetropolitan to metropolitan areas is the dominant stream, reflecting the disproportionate growth and concentration of employment opportunities in metropolitan areas. As the society advances toward higher levels of socioeconomic development, urbanization leads to a majority of the population being concentrated in metropolitan areas. At this point, metropolitan to metropolitan migration supersedes nonmetropolitan to metropolitan migration as the dominant stream, and the society's social and economic transactions become increasingly centered on a system of metropolitan areas through which the flow of people, goods, services and information are controlled and coordinated. Societal integration is facilitated by the spread of transportation and communication networks, continuously reducing the time and cost barriers associated with long distance interactions, thus permitting households

and firms greater locational flexibility (see also Long, 1985). The attainment of the highest stage of development is indicated by an equilibrium distribution of the population and a convergence in the social and economic structure of metropolitan and nonmetropolitan areas. Migration at this point becomes essentially a random process, no longer substantially affected by area differences in endowments (whether resources, labor, or capital).

Zelinsky observes that since the 1930's, the United States has been in the "advanced societal" stage of development. This stage is characterized by: 1) a leveling off of migration at a higher level; 2) movement from countryside to city continues but at a decreasing rate in both absolute and relative terms; 3) vigorous movement of migrants between and within urban agglomerations; and 4) the emergence of noneconomic motivations as a significant factor in migration. A number of other studies report findings that are consistent with Zelinsky's discussion of contemporary redistribution trends in the U.S. (For reviews see Fuguitt, 1985; Wilson, 1984, 1986, and forthcoming; Brown and Sanders, 1981; Wardwell, 1980).

The substantial role of regional population redistribution trends in the metropolitanization process indicates, at least in the U.S., that Zelinsky's mobility transition hypothesis needs to be modified to take account of this source of variation. Available evidence indicates that the U.S. has not yet reached the stage in which the spatial distribution of its population is at an equilibrium point. The general hypothesis of uneven regional development, which includes consideration of the relations between core and peripheral areas, has been shown to be relevant to

the historical and contemporary development of the U.S. Urban system (see Berry, 1973; Wilson, 1986, and forthcoming; Norton and Rees, 1979; Morrill, 1980; Long, 1981; Smith, 1984). Smith (1984:115), for example, notes that historically regional differences in resource endowment were decisive in promoting regional differences in development and metropolitanization, but that currently uneven development is based more and more systematically upon spatial differentiation of the social determinants of capital accumulation such as wage rates, level of unionization, and worker's skill and productivity. Other writers tend to emphasize the substantial impact of shifting political alliances and the military industrial complex on contemporary regional differences in population and economic growth (Mollenoff, 1984; Abbott, 1981); the spatial impact of product life cycles, and how the changing oemands of capitalization produces a dynamic disequilibrium which has spatial implications (See Frey, 1985; and Weinstein, Gross, and Rees, 1985 for reviews); and technologically induced changes in production systems, which leads to locational changes as the latter takes into account spatial variations in the cost of labor and capital (see Norcliffe, 1984; Gertler, 1986; Scott, 1986, for reviews).

All of these perspectives indicate, if only in an indirect way, that the spatial distribution of population is not fixed, but rather is subject to change as technological and structural forces alter product demand, labor/capital cost ratios, and the relative advantages of geographical areas with respect to their ability to provide the appropriate mixed of resources needed to promote productivity, efficiency, and profitability. The apparent rise in the economic fortunes of what has

come to be called the "sunbelt" or "peripheral" region of the United States is a direct result of these changes. In addition, these changes have altered the value and character of interregional and metropolitan and nonmetropolitan migration flows. The primary objectives of this paper is to describe changes in these patterns of flows and assess their impact on the changing spatial structure of the U.S. regional system. We begin by asserting that, from the point of view of efficiency and profitability, the employment of capital in an advanced industrial system inevitably leads to a progressive narrowing of the social and economic advantages of core regions (over traditionally underdeveloped regions) with respect to production and consumption. This is because the diffusion of the benefits of an advanced industrial society, via improved means of transportation and communication and the proliferation of spatially differentiated inter- and intra-organizational linkages, lead to increased societal integration and the elimination of barriers that limits the locational opportunities available to households and firms. Hence, the volume and direction of migration occurring between functionally differentiated geographic areas are a reflection of the opportunities available in an increased number of alternative locations.

Figure 1 provides a graphic view of the hypothesized dominant direction of migration flows connecting metropolitan and nonmetropolitan areas within and between two types of regions -- core and upward transitional areas. The definition of these areas are adapted from ones suggested by Freidmann (1973). Core regions have typically achieved an advanced stage of development, characterized by extensive industrialization, the presence of a high concentration of control,

coordination, and decision making functions that direct the flow of information, goods, and people to and from peripheral areas; and a high degree of metropolitanization with intermetropolitan movements being the dominant form. This description has long been used to characterize regions of the Northeast, North Central, and the Pacific (mainly California). An upward transitional region, on the other hand, while economically subordinate to the core region, is characterized by rapid economic growth based on an increased ability to innovate and perform seedbed functions for emerging industries; and increased metropolitanization, due to migration from the core and nonmetropolitan areas within the region. Post Depression period changes in the South and Mountain region fit this description.

[Figure 1 about here]

As noted previously, historical differences in the timing and extent of socioeconomic development and metropolitanization between the core and periphery should result in different patterns of migration occurring both within and between these regions. The hypothesized ranking of the dominant within and between sector migration streams reported in each cell of figure 1 are for the initial observation period under review in this analysis. First, an advanced level of socioeconomic development and metropolitanization in the core region promotes the dominance of metropolitan origin streams with respect to both intra and inter-regional destinations. The metropolitan to metropolitan flows will be the dominant stream of those originating from the core, because metropolitan areas are the principal place of residence for the majority of the population and they are the major points of origin and destination for

social and economic transactions. The metropolitan to nonmetropolitan stream is the second largest stream, but the reasons for this are not the same for within core and core to upward transitional movements. In the case of the metropolitan to nonmetropolitan within core stream, its size ranking is a reflection of individual metropolitan areas reaching advance stages of population deconcentration. As metropolitan areas age, population deconcentration first appears in the form of central city to suburban movements, and later in the form of central city and suburban movements to adjacent nonmetropolitan areas, as technological and organizational changes permits further expansion at the periphery (Wilson, 1986; Long, 1985; Vanden Burg, et al, 1982; Scott, 1986; Norcliffe, 1984). The size of the core to upward transition metropolitan to nonmetropolitan stream on the other hand, is probably associated more with the formation of metropolitan areas in the upward transitional region than the advancement of existing metropolitan areas to higher levels of deconcentration (see Wilson, 1986).

The relative size of the migration streams originating from the upward transitional region should differ from those originating from the core region. The principle feature of this region is that it's status as the periphery is being transformed as a result of social and economic changes. Moreover, the fact that a majority of the population in this region was concentrated in nonmetropolitan areas prior to the 1960's indicate that streams originating from this sector would be larger than those originating from the metropolitan sector. Whether the nonmetropolitan to metropolitan stream is larger than the nonmetropolitan to nonmetropolitan with respect to migration within the upward

transitional region will depend on whether opportunities for employment are increasing at a greater rate in metropolitan than nonmetropolitan areas. A good indicator of whether, initially, opportunities are greater in the core region is whether migrants from the upward transitional region evidence a greater tendency to select metropolitan destinations in the core. The hypothetical ranking presented in the lower left hand cell of Figure 1 predicts that this pattern will prevail.

Changes in the relative ranking of the within and between region metropolitan and nonmetropolitan streams are of greater interest, since these changes should be reflective of the changing relative socioeconomic standing of the two regions prior to and during the initial stage of development of the periphery or subordinate region. Initially, the dominant flow of interregional migration will be from the periphery to the core, followed thereafter by a reversal in the flow favoring the periphery or upward transitional region. This reversal corresponds to changes in the relative growth of employment opportunities, which will tend to be higher in the upward transitional area with the passage of time. Increased similarity between the regions in socioeconomic structures could also be a basis for increased interregional migration (see Wardwell, 1980). In addition to these general interregional changes in migration, the following are also expected: 1) the pattern of movement between metropolitan and nonmetropolitan areas within the upward transitional region will show evidence of convergence toward the within core migration pattern; and 2) the extent of migration between core and upward transitional region metropolitan areas will be greater in the later period.

The above discussion focuses only on gross migration flows within and between regions and metropolitan and nonmetropolitan areas. The transformations that metropolitan and nonmetropolitan areas undergo as a society advances socioeconomically are a cause and consequence of migration exchanges. Migration streams are not composed of a random selection of individuals from the population at origin. There are likely to be important compositional differences between metropolitan/nonmetropolitan migration streams, differences that can help to illuminate the factors that give rise to and cause them to persist over time. Stream differences in composition arise from a number of causes, including the life cycle and career activities of individuals and households, differentials in the availability of economic opportunities, and environmental conditions and amenities associated with pursuing certain life styles. For example, it has long been recognized that the flow of migrants from nonmetropolitan to metropolitan areas tend to consist of first time movers who are younger and more educated than the population they leave behind. Many of these individuals leave nonmetropolitan areas to seek their fortunes in large cities, where employment opportunities, standard of living, and the possibility of pursuing a desired life style are greater. Similarly, metropolitan to metropolitan flows tend to have a higher concentration of mature workers between the ages of 30-50, who are making middle career moves, often in the form of job transfers. In contrast to nonmetropolitan to metropolitan moves, it is unlikely that between metropolitan area differences in socioeconomic structure and amenities are important considerations in this type of move.

Migrant/nonmigrant differences in socioeconomic attainment, particularly those involving rural/urban and North/South comparisons, have attracted considerable attention in the literature, in part because these differences are indicative of the migration of individuals to areas where opportunities for socioeconomic advancement are greater (Blau and Duncan, 1967; Taeuber and Taeuber, 1965; Himes, 1972; Miller, 1977; Lee, 1974; Lieberson, 1978; Wilson, 1981, 1983; Featherman and Hauser, 1978; Bouvier, et al 1976; Long and Hanson, 1977). Bouvier, et al (1976) have made a serious attempt to relate migrant/nonmigrant differences in education attainment to stages of societal development based on an extensive literature review. These authors suggest that (1) the relative education attainment of a population will vary positively with the type of society and the extent of socioeconomic development at origin and destination; (2) the less advanced a society, the greater the likelihood that migrants will have lower education attainment than nonmovers at origin and destination; and (3) the more advanced the society, the greater the likelihood that migrants will have higher education attainment levels than nonmigrants. Figure 2 presents hypothesized migrant/-nonmigrant differentials in education attainment according to whether the origin/destination of migrants is to or from core or upwardly transitional regions, metropolitan and nonmetropolitan areas. This scheme is adapted from Bouvier, et al (1976),
where metropolitan/nonmetropolitan have been substituted for rural/urban and core/upward transitional substituted for stages of societal development. These educational attainment differences provides another test of

the hypothesized relationship between migration and core/upward transitional differences in socioeconomic development discussed earlier.

The basic hypothesis is that education attainment will vary across regions and metropolitan and nonmetropolitan areas, primarily as a consequence of differences in the timing and extent of socioeconomic development. Migrant/nonmigrant differences in education attainment will be reflective of these differences. There are several corollary observations which needs to be stated at this point. First, the variety of linkages between geographic areas within a politically and economically integrated society leads overtime to a convergence in social and economic institutions, and thus reducing the impact of area specific push and pull forces on the volume and composition of migration streams. Second, convergence is an equilibrium seeking process, but which is unlikely to achieve stationality, because external forces to which a society react creates tensions that often necessitate modifications in its pattern of adaption. Finally, the tendency toward convergence in socioeconomic structure does not mean that all regions experience an identical set of transitions as development proceeds. This is because technological and organizational changes are ever present, altering the conditions and context within which development occurs, the character of metropolitanization, and the rate at which it occurs. This issue is further elaborated upon in the discussion section.

Bouvier, et al scheme has been modified to include several streams that they ignored, largely because these were considered rare occurrences. They suggest, for example, that in an advanced industrial society migration between rural areas, and from urban to rural are highly

unlikely to occur, although there is an abundance of evidence to the contrary (see Fuguitt, 1985; Wilson, forthcoming). Indeed, as Zelinsky (1982) suggests, rural to urban migration will continue probably as long as the former produces a surplus of births over deaths, even after a society attains a high level of urbanization.

The pattern presented in figure 2 is based on the hypothesis that migrant/nonmigrant differences in education attainment are a function of regional and local area differences in both opportunities for schooling and employment opportunities subsequent to schooling. Specifically, the education attainment of migrants relative to nonmigrants will be (1) high at origin and destination if both are core metropolitan and nonmetropolitan, or upward transitional metropolitan; (2) low at origin but high at destination if the former originated from the core or involves movement from upward transitional metropolitan to core and upward transitional nonmetropolitan; (3) high at origin but low at destination if the former is nonmetropolitan and the latter is metropolitan destination, or the former is core nonmetropolitan and the latter is core metropolitan and (4) low at both origin and destination if origin is upward transitional nonmetropolitan and destination is metropolitan.

The first pattern usually occurs when socioeconomic convergence reduces to a minimal the impact of push and pull forces on migration, and the streams themselves become dominated by the highly skilled, professionals, and individuals with above average income. Goldscheider (1982:61) suggests that in highly industrialized societies, where movement is between areas that are relatively similar in general socioeconomic conditions, migration has become a screening mechanism for selective

social mobility; a condition noted by others as well (Blau and Duncan, 1967; Featherman and Hauser, 1978; Wilson, 1985; Miller, 1977). The second pattern reflect movement from areas of high to areas of low socioeconomic development. The third is the classic case of highly educated rural born natives migrating permanently to cities seeking better opportunities. Pattern four is hypothesized as occurring only in the migration between nonmetropolitan areas in which the motivation for moving is generally noneconomic in nature.

Current Study

This paper, as previously noted, will explore various dimensions of the association of migration with metropolitanization, within the context of regional socioeconomic development during the 1935-40 period of U.S. history. The general hypothesis to be evaluated is that patterns of migration within and between the metropolitan and nonmetropolitan sectors and between regions, and migrant/nonmigrant differentials in education attainment are reflective of historical differences in socioeconomic development and settlement patterns. The 1935-80 period is very appropriate for evaluating this hypothesis, since it was during this period that the hegemony of the traditional manufacturing belt (identified as the core region, or industrial heartland) begin to seriously erode, because structural changes in the economy altered the prerequisites thought to be essential for growth and viability. In focusing on this period particular attention is given to changes which have occurred, and their significance for emerging patterns of population distribution and redistribution.

Data and Methods

The primary source of data are the 1/100 Public Use Microdata files (PUMS) from the 1940 and 1980 decennial censuses. Supplemental information is obtained from selected Bureau of the Census publications. The PUMS files provides a complete breakdown of the U.S. population on the basis of metropolitan/nonmetropolitan residence, which is used to classify the population five years of age and over according to their migration status during a five-year interval. The peculiarities and limitations of these files are discussed elsewhere and need not be repeated here (see Wilson, 1986, Forthcoming)[c13]. Migrants are individuals who left their state or SMSA of residence, and are classified according to whether they are metropolitan to metropolitan, metropolitan to nonmetropolitan, nonmetropolitan to metropolitan, or nonmetropolitan to nonmetropolitan movers. Nonmigrants are defined as individuals who did not leave their state or SMSA of residence. The SMSA residence restriction applies only in instances in which an SMSA crosses state boundaries. Excluded from the analysis are individuals who did not report their previous place of residence, and persons who were abroad (including U.S. Possessions) during the five interval prior to the census.

In the analysis which follows, the nine major census divisions are grouped into two broad categories designed to represent the core and upward transitional regions defined previously. The core region includes the New England, Middle Atlantic, East North Central, and Pacific divisions; and the upward transitional includes the West North Central, South Atlantic, East South Central, West South Central, and Mountain divisions. The grouping of divisions according to a core/upward

transitional dichotomy differ from those employed in previous works; such as, for example, those that have used the snowbelt/sunbelt distinction.[2] The primary rational for the current classification is that divisions in the core and upward transitional categories differ significantly on a number of indicators of historical patterns of socioeconomic development, which provides the context for interpreting migration trends since the Great Depression. Since the regional dichotomy used in this analysis differs from those used in previous works. It would be useful at this point to present data indicating the appropriateness of this classification for the analysis of migration trends. The 1940 period provides an analytically useful brenchmark for evaluating subsequent changes among the two sets of divisions. Since this period, the momentum of population and economic growth has shifted to the upward transitional region, signalling a movement toward convergence in social and economic structures, and changes in the structure of relations between the two regions.

Tables 1-4 presents trends for the two regions with respect to several indicators that are of interest in this analysis. First, it can clearly be observed in Table 1 and 2 that core divisions achieved urban and metropolitan majorities prior to the 1920's, whereas the upward transitional divisions achieved urban majorities beginning in the 1940's and metropolitan majorities beginning in the 1950's. These regional differences in the timing of urban/metropolitan maturity should have important implications for migration patterns, particularly during the period covered in this analysis. Second, in 1940, there were marked differences in the industrial structure of the two regions (see Table

3).[33] Agriculture constituted only 9 percent of the labor force in the core region, but 32 percent of the labor force in the upward transitional region. Similarly, extractive and transformative industries account for 37 and 21 percent of the labor force in core and upward transitional regions respectively. Since 1940, however, there has been a clear trend toward convergence between the regions in practically all of the major industry groups. Although the share of the U.S. labor force concentrated in the core region has remained virtually the same, its share of manufacturing employment (transformative) declined from 69 percent to 62 percent. Most of the change which has occurred has been internal to each region: in the core, from agriculture and extractive/transformative activities to producer services; and in the upward transitional, from agriculture to extractive/transformative and produces services. Finally, Table 4 indicates that the divisions within each regional grouping are similar with respect to average per capita income. Average per capita income for the core divisions are higher than the U.S. average, while those for the upward transitional division are lower. One can also note, however, that regional differences in per capita income have narrowed considerably since 1929, from 46.1 in 1929 to 12.1 in 1981. This is another indication of the changes which have occurred in the Post WWII period in the social and economic conditions of the upward transitional region.

Results

The major concern in this paper is with changes in migration patterns within and between core and upward traditional regions as they relate to metropolitanization and socioeconomic development. The

discussion of urbanization/metropolitanization and changes in industrial structure and per capita income indicates a significant trend toward convergence in the social and economic structures of core and upward transitional regions during the post World War II period. The model of the mobility transition elaborated earlier indicates that changes occurring in both regions should alter the character of migration occurring within and between them. The first issue to be addressed is whether the volume and direction of migration changed between the 1935-40 and 1975-80 periods in a manner consistent with the mobility transition hypothesis elaborated earlier.

Table 5 presents gross distributions of migrants by origin/destination regions and metropolitan and nonmetropolitan areas. The distribution of migrants across the various origin and destination categories for the 1935-40 period are consistent with the mobility hypothesis. In the case of the core region, one can note that the majority of moves originating within this region are to and from metropolitan areas. This is to be expected considering that over two-thirds of the population of the core region is concentrated in metropolitan areas. The intermetropolitan stream is dominant, followed by the metropolitan to nonmetropolitan, nonmetropolitan to metropolitan, and nonmetropolitan to nonmetropolitan stream. It is quite evident that even during this time interval metropolitan areas within the core region were sending more migrants to nonmetropolitan areas within the core than they received. This imbalance is in all likelihood a result of the peripheral expansion of metropolitan settlement patterns into nonmetropolitan territories (see Wilson, 1986), most of which were subsequently added to the metropolitan universe.

The pattern of migration originating from the upward transitional region during the 1935-40 period differed in several respects from that originating from the core region. The percentage of persons migrating was two points higher than the core region (5.81 versus 3.48), and 577,776 more persons migrated to the core than left (1,200,563 versus 622,787). Hence, even during this period of reduced economic growth the direction of movement still favored the more economically advanced region. In addition, one can note that migration to the core was predominantly to metropolitan areas. Migration within the upward transitional region was nonmetropolitan dominant, primarily because of the inter-nonmetropolitan flows. This stream was at least twice the size of the three other streams, which indicates the availability of limited employment opportunities in metropolitan areas. That a higher percentage of upward transitional migrants moved to metropolitan areas in the core region than within that region (12.52 versus 10.41) is also consistent with this observation.

The pattern of migration occurring within and between the two regions during the 1975-80 period was markedly different than that observed for the 1935-40 period. The percentage migrating increased to roughly nine percent for both regions. Moreover, 53 percent of all interstate moves originating from the core region was to destinations in the upward transitional region, an increase of 20 percentage points over the 1935-40 level. On the other hand, only 33 percent of movers originating from the upward transitional region was to the core; a decline of seven percentage points. Both patterns of movement indicate that the momentum of growth had shifted to the upward transitional region during

the intervening years. That economic growth within the upward transitional region was probably concentrated in metropolitan areas is indicated by the overwhelming dominance of the intermetropolitan stream regardless of whether it originated internally or from the core region. The overall pattern of migration within the upward transitional region is becoming similar to that in the core region. This is indicated by the size ordering of the within upward transition migration streams--metropolitan to metropolitan, metropolitan to nonmetropolitan, nonmetropolitan to metropolitan and nonmetropolitan to nonmetropolitan. This ordering of the streams is a reflection of the emerging structure of its metropolitan system and the fact that its level of socioeconomic development is converging toward the pattern exhibited by the core.

The results reported on gross migration flows occurring within and between metropolitan and nonmetropolitan areas for core and upward transitional areas are consistent with the hypothesis postulating a relationship between migration, metropolitanization, and socioeconomic development. Now we wish to extend the evaluation of this hypothesis to include migrant/nonmigrant differentials in education attainment. Differences in socioeconomic development between functionally distinct geographic aggregates would be expected to be reflected in migrant/nonmigrant differences in education attainment along the lines hypothesized in Figure 2. More specifically, individuals migrating between areas of similar levels of development should have education attainment levels similar to that of nonmigrants, while those migrating between areas differing in socioeconomic development should have education attainment levels different from nonmigrants. Furthermore, one would expect such

differences to be greater for interregional migrants, with the differences diminishing with time.

The previous discussion of the extent and direction of differences in the education attainment of migrants and nonmigrants omitted two important considerations. First, migrants tend to be much younger, and because of it, generally more highly educated than nonmigrants (see Wilson, 1981, 1985; Sandefur, 1986; Long and Hanson, 1977). In addition, age capture a "vintage" effect due to the fact that in this century, each successive birth cohort has experienced increased education attainment over pervious cohorts. If a succeeding cohart completes more years of schooling and is also larger in size, as is true of the 1946-1961 birth cohorts, then the general migration rate will increase, ceteris paribus (see Long and Hansen, 1977; Wilson, 1983). In sum, and analysis of migrant/nonmigrant differences in education must take into account the impact of age on both the rate and volume of migration.

Second, implicit in the hypothesis regarding migrant/nonmigrant differences in education attainment is the assumption that functionally distinct geographic areas have markedly different opportunity structures and hence different labor requirements.[4] The data present in Table 6, which are age adjusted years of schooling completed distributions (in percentage) of the population 25 years of age in 1935 and 1975, tends to support this observation.[5] One can note that while a dramatic upward shift in years of schooling completed for the population 25 years of age and over in all areas occurred since 1935, the percentage of persons concentrated in the higher schooling categories is greater for metropolitan areas, and the core region. The ordering of the areas for

both years is as follows: core metropolitan, upward transitional metropolitan, core nonmetropolitan, and upward transitional nonmetropolitan. These area differences in education attainment indicate that the higher the education attainment of origin population, the higher the education attainment of migrants from that origin. Hence migrant/nonmigrant differences in education is not only reflective of the greater propensity of the highly educated to migrate but also of the education attainment of the population of origin and destination.

Goodman's (1972) log linear model for the analysis of cross-classification is used to analyze migrant/nonmigrant differences in education attainment net of age. The model that is to be estimated compares the education attainment of migrants and nonmigrants, separately for the 1935-40 and 1975 migration intervals, and contains the following specification:

$$\text{Log } (E) = \tau^{E} + \tau^{EA} + \tau^{EG} + \tau^{EAG} \qquad (1)$$

Where E is years of schooling completed (one or more years of college completed versus high school or less); A is age at the beginning of a migration interval (25-34; 35-44; 45-54; 55+); and G is a sixty-four category nested classification consisting of migration status (migrant versus nonmigrant), region (core versus upward transitional), metropolitan status (metropolitan versus nonmetropolitan), migration stream (metro to metro, metro to nonmetro, nonmetro to metro, and nonmetro to nonmetro), and origin/destination areas. The population less than 25 years of age at the beginning of a migration interval are excluded to eliminate the migration of dependent children, individuals

who moved to attend school, and many young individuals entering or leaving the armed forces (see footnote one).

The parameter specifications in equation (1) allow a direct test of the hypothesized migrant/nonmigrant education attainment differentials presented in Figure 2. The additive log odds coefficients for the nested classification, G, will form the basis of our discussion. These coefficients, which are reported in Table A1, give the log odds of a migrant and nonmigrant having completed one or more years of college by area of origin and destination, separately for the 1935-40 and 1975-80 migration intervals. The nested classification offers the advantage of comparing migrants and nonmigrants under all possible combination of origin and destination areas. Thus, for example, it is possible to compare the education attainment of migrants with that of nonmigrants at origin and destination, taking into account differences in the age distribution of the two areas.

Table 7 reports migrant/nonmigrant differences in college education attainment by origin, destination, and time period. These coefficients were obtained by taking the difference between the raw log odds coefficients for migrants and nonmigrants reported in Table A1 in the Appendix, and can be interpreted as the log odds of a migrant (relative to a nonmigrant) completing one or more years of college. Negative values indicate that the college attainment of nonmigrants is greater than that of migrants. All of the coefficients except one are at least four times the size of their standard error.

The coefficients reported in Table 7 indicate that migrants have a greater likelihood of completing one or more years of college; a finding

which is consistent with the findings of previous studies indicating a positive association between migration and education (see Wilson, 1981, 1985; Sandefur, 1986; Long and Hanson, 1977). The positive association between migration and education attainment is easily explainable as originating from three sources. First, education attainment increases an individual's ability to both obtain and analyze information from multiplicity of sources, on a variety of locations, which would be of great benefit in assessing whether a move will lead to advancement. Second, education inculcates values and skills which ease the severance and establishment of social ties, and pursuing it often requires leaving the parental place of residence. Finally, the labor market area for persons with differing levels of skills tends to vary from the local to regional to national level. Highly skilled persons are more likely to cross local labor market boundaries in search of employment or to improve their socioeconomic standing, because their labor is sold on a market which is more geographically dispersed. In addition, the organization of the labor force into larger employing units that form interlocking spatially differentials networks promotes the geographic mobility of the highly educated. Moreover, the fact that most of the values declined over time, indicate the education selectivity of migration may be diminishing, although two observation points are not sufficient to draw a definitive conclusion in this regard.

The above considerations help to explain why one would expect migrant/nonmigrant differences in education attainment, but they do not explain why such differences would vary between areas. Since the results indicate that migrants have completed more years of schooling than

nonmigrants regardless of area of origin or destination, the hypothesis as previously stated has to be modified. The difference values reported in columns (3) and (6) of Table 7 indicate migrant/nonmigrant differences vary substantially between areas of origin and destination. The zero values in these columns are of no concern, since they simply indicate, in the case of within area contrasts, that migrant and nonmigrants at origins are the same persons as those being compared at destination. The size and signs of the other coefficients do indeed form an interpretable pattern, which basically mirror the pattern of differences in the education distribution of areas presented in Table 6. The coefficients reported in Table 7 indicate that migrant/nonmigrant differences in education attainment are (1) similar at origin and destination if both are characterized by similar levels of socioeconomic development; (2) lower at origin relative to destination if the former is higher in socioeconomic development; and (3) higher at origin relative to destination if the latter is higher in socioeconomic development.[63]

A few examples may help to highlight the pattern of results exhibited in Table 7. First, one can note that the migrant/nonmigrant education attainment differential is lower at origin than destination for all the metropolitan to nonmetropolitan migration streams, while the opposite is true for nonmetropolitan to metropolitan migration stream. The size of the differences, though small, do vary depending on whether the origin or destination of stream is within or between regions. Second, migrant/nonmigrant education attainment differences are slightly larger at destination than origin if the latter is core metropolitan. Finally, one can note in most of the contrasts while substantial declines

occurred in the sizes of migrant/nonmigrant differences in education attainment (columns (1) and (2) versus (4) and (5), origin and destination differences changed only slightly. This pattern of change is quite evident among the four core to upward transitional streams, which indicate a substantial decline in the educational selectivity of migration from the core. A possible interpretation of this change is that the education selectivity of a stream diminishes with time as the volume increases and as socioeconomic conditions at destination improves (see Campbell and Johnson, 1976; Wardwell, 1980; Lee, 1966).

Discussion

The principal focus of this paper has been on the association of migration with regional variation in metropolitanization and socioeconomic development. Specifically, an attempt was made to determine whether the general hypothesis of the mobility transition was applicable to Post Depression trends in migration within and between core and upward transitional regions in the United States. Gross migration flows during the 1935-40 period, and changes reflected in the 1975-80 period are consistent with the mobility transition hypothesis, giving support to the idea that developmental impulses, operating primarily through the metropolitanization process, structure the context within which migration occurs. Transformations in socioeconomic structure of the periphery region occurring since the Great Depression clearly indicates the presence of a convergence process, which is eroding the differences between the former and core region with respect to patterns of migration. It would be a mistake, however, to assume that the convergence process will eventually lead to a stationary state. This is in part because the

socioeconomic structure of the core continues to change and may itself be undergoing a transformation which may set its economy on a course very different from what one would predict based on its past course of development (see Harrison, 1982; Gertler, 1986, Scott, 1986; Frey, 1985; Noyelle and Stanback, 1985; Weinstein, Gross and Rees, 1985). It goes without much elaboration that in societies characterized by highly integrated political and economic structures, changes in core or periphery regions are likely to be mutually reinforcing. In addition, although there may be increased similarities in socioeconomic structures and population distribution and redistribution patterns, the pattern of development of the periphery region of the U.S. is not following the trajectory of the core region; in large part because developmental impulses are not the same as they were a century ago when the latter was experiencing rapidly socioeconomic development nor has technology remained the same. A number of writers have noted that current regional differentials in population and economic growth are a result of uneven developmental processes that are unlikely to lead to the emergence of a stable homogeneous structure, but rather (eventually) to a new round of labor and capital mobility (see Gober, 1984; Wilson, 1984; Keinath, 1985; Gertler, 1986; Scott, 1986). Perhaps the most that can be said is that there appears to be general similarities in the general structure and dynamic of the metropolitanization process.

Results also indicate that differences in the socioeconomic structure of functionally distinct geographic aggregates are reflected in migrant/nonmigrant differences in education attainment. While migrants have higher education attainment than nonmigrants, migrant/nonmigrant

differences in education attainment are (1) similar at origin and destination if both are characterized by similar levels of socioeconomic development; (2) lower at origin relative to destination if the farmer is higher in socioeconomic development; and (3) higher at origin relative to destination if the later is higher in socioeconomic development.

An important factor not explicitly taken into account in the analysis present here is the role that different types of migrants play in the population redistribution process. Here I have reference to the composition of inter-regional and metropolitan/nonmetropolitan migration streams with respect to first time versus repeat or chronic movers. There is considerable evidence indicating that migration flows are dominated by repeat movers; some moving to different places throughout their live cycle; while others make a circular path from origin to another place only to return either within a short period of time, or later in the life cycle (see Miller, 1977; DaVanzo and Morrison, 1981; Deleted; Lee, 1974). The multifacet nature of these types of movements must be taken into account if the goal is to give a full accounting of the association of migration with metropolitanization and socioeconomic changes.

Footnotes

[1]The PUMS files can only provide counts of migrants during a five year interval. Since the current analysis is concerned principally with moves that are employment or career related, the absence of information on the PUMS files indicating the underlying reasons for moving is a serious problem. Moreover, several of the geographic criteria used to define migration are intended to partially deal with this issue. In focusing only on moves between states, and between separate metropolitan and nonmetropolitan areas, we have eliminated a substantial number of moves that are associated with family life cycle changes, and the demand for housing and neighborhood services. Previous analyses indicate that approximately two-thirds of interstate moves or moves between metropolitan and nonmetropolitan areas are related to labor force activity (49%) school attendance (8%), and the armed forces (4%) (See Long and Hansen, 1979; Long and DeAre, 1980; Wilson, 1979; Greenwood, 1981; Greenwood and Hunt, 1984). Among persons less than twenty-five years of age, school attendance and the armed forces account for an even larger share of moves. Although not usually viewed as such, both of these types of moves are career related, and often lead to the individual not returning to his parents residence. It is also interesting to note that prior to 1940 and since 1975, armed force related moves were not as prevalent because military conscription laws were not in effect.

[2]Several authors have noted that the sunbelt/snowbelt dichotomy is conceptually and methodologically flawed (see Gertler, 1986; Browning and Gesler, 1979; Gober, 1984; Kienoth, 1985).

[3]The results of a log linear analysis of a classification consisting of the nine census divisions, five industry groupings, and four census years also confirmed the usefulness of the core/upward transitional dichotomy. The analysis involved estimating the following contrasts: (1) [I][D][T] VS [IDT]; (2) [I][S][T] VS [IST]; AND (3) [I][C][T] VS [ICT]. Where I is Industry, D is Division, T is Time; S is Sunbelt/Snowbelt, and C is Core/Upward Transition. Each of these contrasts test whether the second model in the contrast - [IDT], [IST], and [ICT] - can explain all of the variation in cell frequencies as indicated by the model of independence, which is the first model in the contrast. In the first contrast, the [IDT] term explains all of the variation in cell frequencies not accounted for by the independence model. The [IST] reduces the X^2 term for independence by 19 percent while [ICT] reduces the X^2 term for independence by 28 percent. These results indicate that the core/upward transition dichotomy provides a better fit to grouping divisions than the sunbelt/snowbelt dichotomy.

[4]In this regards, the occupational distribution of a place would be a more suitable measure of opportunity structure. Unfortunately, the PUMS file provides information only on an individual's usual occupation at the time of the census. Hence, the temporal ordering of migration and being employed in a particular occupation becomes difficult if not impossible to disentangle because of the absence of information on labor

force activity prior to the move. In addition, the substantial changes made in the occupational codes reported for the 1980 census makes trend analysis with previous censuses vary difficult, except for very broad occupational groupings.

[5]The percentage distributions reported in Table 5 have been adjusted for the effects of age, using a procedure suggested by Kaufman & Schervish (1986). The procedure was as follows. A saturated log linear model predicting education attainment, with age, core/upward transitional, metropolitan and nonmetropolitan, and the 1935 and 1975 time periods as independent variables. From this model, the main and interaction effects of all variables except age on education attainment were used as start values in the estimation of another model from which expected cell frequencies were derived. These expected frequencies were percentaged as presented in Table 6.

[6]As previously indicated. Level of socioeconomic development is indexed on the basis of (1) core/upward transitional region differences in urbanization/metropolization, industrial structure, and per capita income; and (2) the differences in education distribution indicated in Table 6, which distinguish between core/upward transitional regions, and metropolitan/nonmetropolitan status. The ordering of these areas according to level of socioeconomic development is as follows: core metropolitan upward transitional metropolitan, core nonmetropolitan, and upward transitional nonmetropolitan.

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Figure 1. Hypothesized dominant direction of interregional and metropolitan/nonmetropolitan migration streams.

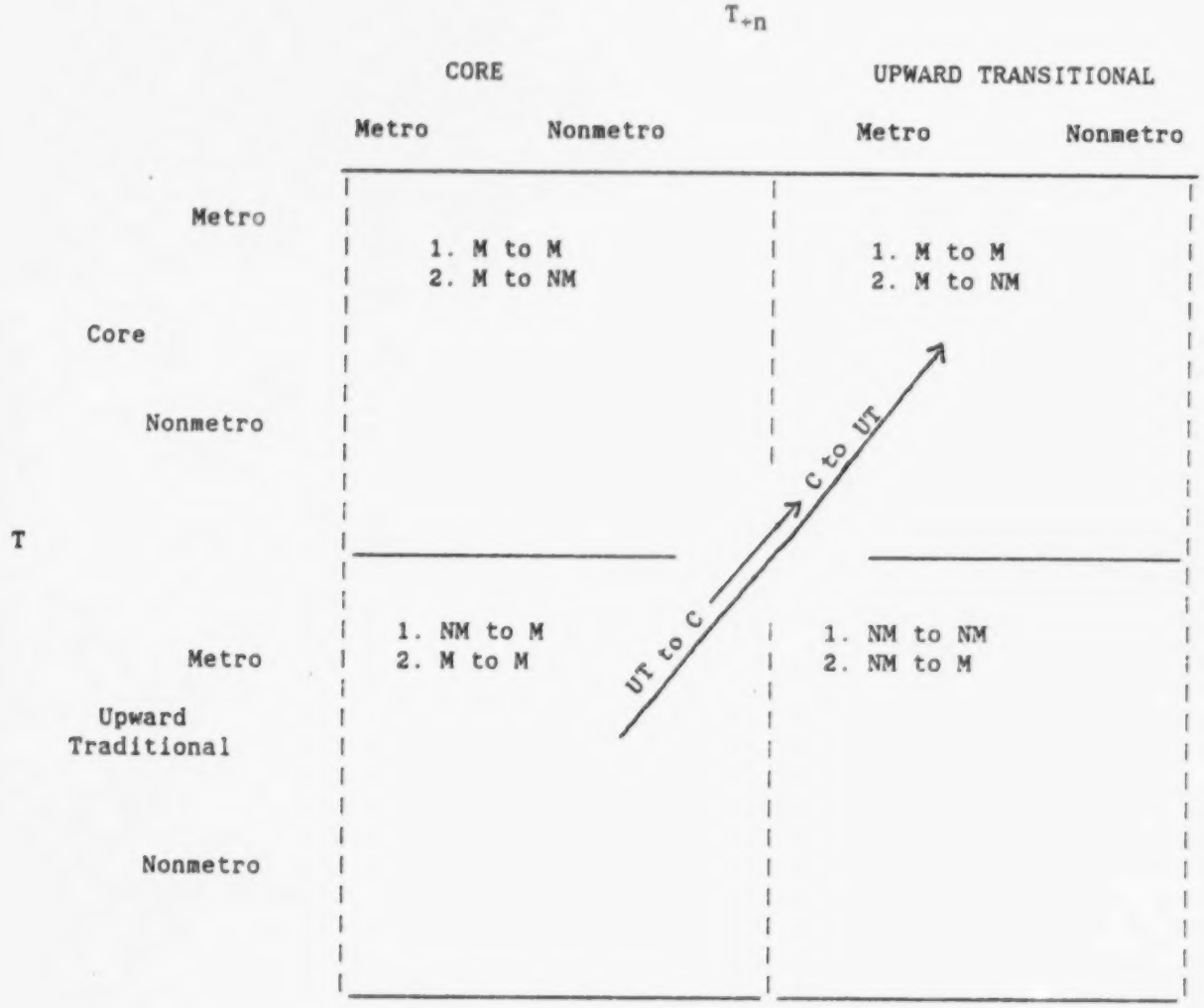

Figure 2. Hypothesized Migrant/Nonmigrant Differentials in Educational Attainment.

		DESTINATION			
		CORE		UPWARD TRANSITIONAL	
		Metropolitan	Nonmetropolitan	Metropolitan	Nonmetropolitan
Core	Metropolitan	H H	L H	L H	L H
	Nonmetropolitan	H L	H H	L H	L H
Upward Transitional	Metropolitan	H L	L H	H H	L H
	Nonmetropolitan	H L	L L	H L	L L

NOTE: Cell values denote nonmigrant/migrant educational attainment differentials at origin and destination. For example, (L L) indicates that the educational attainment of migrants is lower than nonmigrants at both origin and destination; while (L H) indicate that the educational attainment of migrants is lower than nonmigrants at origin, but higher than nonmigrants at destination.

Table 1. Percentage of Division Population Concentrated in Urban Areas.

Division	1920	1930	1940	1950	1960	1970	1980
CORE							
New England	75.9	77.3	76.1	76.1	76.4	76.6	75.1
Middle Atlantic	75.4	77.7	76.8	80.5	81.4	81.8	80.6
East North Central	60.8	66.4	65.5	69.7	73.0	74.8	73.3
Pacific	60.5	66.6	64.9	74.4	81.1	86.2	86.6
Upward Transition							
West North Central	37.7	41.8	43.3	52.2	58.8	63.7	63.9
South Atlantic	31.0	36.1	38.8	49.1	57.2	64.1	67.1
East South Central	22.4	28.1	29.4	39.1	48.4	54.7	55.7
West South Central	29.0	36.4	39.8	55.6	67.7	72.7	73.4
Mountain	36.5	39.4	42.7	54.9	67.1	73.1	76.4

Source: U.S. Bureau of the Census, 1983, Table 13

Table 2. Percentage of Division Population Concentrated in Metropolitan Areas

Division	1920	1930	1940	1950	1960	1970	1980
CORE							
New England	74.6	75.9	75.6	77.1	79.6	79.1	76.6
Middle Atlantic	79.1	82.2	82.5	83.0	83.5	89.2	87.7
East North Central	51.9	59.4	59.3	63.6	67.1	79.4	78.1
Pacific	59.7	68.7	66.2	73.9	80.1	90.3	89.4
Upward Transition							
West North Central	26.5	30.7	32.6	37.1	43.3	53.1	53.3
South Atlantic	21.5	28.9	31.2	38.6	48.7	70.2	70.4
East North Central	17.5	21.6	23.4	29.6	36.0	52.9	51.9
West North Central	19.7	26.5	29.6	39.7	53.5	68.5	70.4
Mountain	14.7	17.4	20.0	30.3	48.8	61.2	63.1

Source: 1920-1960, Robinson (1968), Tables 2 and 11
1970-80, U.S. Bureau of the Census (1981), Table 5

Table 3. Distribution of Employment By Major Industry Groupings for Core and Upward Transition Regions: 1940-1970.

Region/Industry[1]	Percentage of Employment							
	Within Region				Total			
	1940	1950	1960	1970	1940	1950	1960	1970
CORE								
TOTAL	100.00	100.00	100.00	100.00	57.16	57.97	58.51	57.88
Agriculture	9.33	6.40	3.90	2.37	27.75	29.65	33.47	37.32
Extractive/ Transformative	36.85	38.95	38.75	33.95	69.28	67.42	66.27	61.91
Distributive	10.41	11.78	10.54	10.51	61.28	62.44	59.23	58.06
Producer	14.24	15.15	19.41	25.85	63.65	61.82	60.96	59.95
Others	29.17	27.72	27.40	27.32	59.81	58.89	53.54	54.25
UPWARD TRANSITION								
TOTAL	100.00	100.00	100.00	100.00	42.84	42.03	41.49	42.11
Agriculture	32.41	20.95	10.93	5.46	72.25	70.35	66.53	62.68
Extractive/ Transformative	21.80	25.95	27.79	28.71	30.72	32.58	33.73	38.09
Distributive	8.79	9.78	10.22	10.43	38.72	37.56	40.77	41.94
Producer	10.85	12.91	17.53	23.73	36.35	38.18	39.04	40.05
Other	26.96	30.41	33.53	31.67	40.19	41.11	46.46	45.75

Source: Bureau of Economic Analysis, U.S. Department of Commerce, 1975, Regional Employment by Industry, 1940-1970.

[1]Industry Groupings, Adapted from J.Singlemann (1979), Consist of the following two digit SIC Codes: Agriculture, 01-09; Extractive and Transformative, 10-39; Distributive, 40-49, 50; Producer, 60-67, 73-76, 80-86, 89; Others, 54-59, 70-72, 78-79, 91-93, and Industries not reported.

Table 4. Average Divisional Per Capita Income as a Percentage of the U.S. Average: 1929-1981

Region	1929	1944	1954	1964	1976	1981
CORE						
Average[1]	118	114	109	106	103	103
New England	112	101	99	98	97	98
Middle Atlantic	136	121	116	114	108	108
East North Central	109	107	108	105	104	100
Pacific	115	127	112	108	105	106
UPWARD TRANSITIONAL[1]						
Average	71	81	83	85	90	91
West North Central	76	87	90	88	92	97
South Atlantic	86	88	90	92	98	96
East South Central	49	63	63	73	80	77
West South Central	59	74	76	79	87	91
Mountain	86	94	97	92	94	95

Source: Weinstein, Gross, and Rees, 1985, Table 2.2

[1]Averages are computed over divisions.

Table 5. Metropolitan and Nonmetropolitan Migration Flows Within and Between Core and Upward Transitional Regions for the Population Five years of Age and Over: 1935-40 and 1975-80.

	1975-80			1934-40			
	No (1)	Percent (2)	Percent (3)	No. (4)	Percent (5)	Percent (6)	Change Percent (7)=(3)-(6)
Grand Total							
CORE							
Total	99751800	100.00		55362322	100.00		
Non movers	90631200	90.86		53436155	96.52		
Movers	9120600	9.14	100.00	1926167	3.48	100.00	
To Core	4329600		47.47	1303380		67.67	-20.20
Metro to Metro	3035000		33.28	707236		36.72	- 3.44
Metro to Nonmetro	608800		6.67	234614		12.18	- 5.51
Nonmetro to Metro	488600		5.36	219881		11.45	- 6.09
Nonmetro to Nonmetro	197200		2.16	141649		7.35	- 5.19
To Upward Transitional	4791000		52.53	622787		32.33	20.20
Metro to Metro	3027200		33.19	278816		14.48	18.71
Metro to Nonmetro	1002000		10.99	191390		9.94	1.05
Nonmetro to Metro	506000		5.55	70558		3.50	1.89
Nonmetro to Nonmetro	255800		2.80	82023		4.24	- 1.46

Table 5. (continued) Metropolitan and Nonmetropolitan Migration Flows Within and Between Core and Upward Transitional Regions for the Population Five years of Age and Over: 1935-40 and 1975-80.

	1975-80			1934-40			
	No (1)	Percent (2)	Percent (3)	No. (4)	Percent (5)	Percent (6)	Change Percent (7)=(3)-(6)
Upward Transitional Total	85659000	100.00		51718435	100.00		
Non movers	77204400	90.13		48713096	94.19		
Movers	8454600	9.87	100.00	3005339	5.81	100.00	
To Core	2814200		33.29	1200563		39.95	- 6.66
Metro to Metro	1704200		20.16	376140		12.52	7.64
Metro to Nonmetro	323600		3.83	99087		3.30	0.53
Nonmetro to Metro	611800		7.24	421146		14.01	- 6.77
Nonmetro to Nonmetro	174600		2.07	304190		10.12	- 8.05
To Upward Transitional	5640400		66.71	1804776		60.05	6.66
Metro to Metro	2813800		33.28	312945		10.41	22.87
Metro to Nonmetro	1050800		12.43	247842		8.24	4.19
Nonmetro to Metro	1049400		12.41	401019		13.34	- 0.93
Nonmetro to Nonmetro	726400		8.59	842970		28.05	-19.46

Table 6. Age Adjusted Percentage Distribution of the Population 25 Years of Age and Over by Years of Schooling Completed for Areas: 1935, 1975.

Years of Schooling Completed	1935				1975			
	CORE		UPWARD TRANSITIONAL		CORE		UPWARD TRANSITIONAL	
	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro
<9 Years	13.52	18.04	19.05	29.52	58.80	65.02	61.44	73.95
9-11 Years	15.72	16.10	16.28	17.73	14.66	14.58	12.59	11.22
High School	38.88	42.53	33.21	31.50	15.39	11.67	13.98	7.39
1-3 Years College	17.34	13.52	17.13	12.61	6.00	5.70	7.10	5.00
4 + Years College	14.57	9.80	14.34	8.65	5.16	3.03	4.89	2.44
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 7. Partial Log Odds of a Migrant (Versus a Nonmigrant) having Completed One or More Years of College by Origin/Destination and Stream Type: 1975-80

Stream Type	1975 - 1980 Origin (1)	1975 - 1980 Destination (2)	1975 - 1980 Difference (3)	1935 - 1940 Origin (4)	1935 - 1940 Destination (5)	1935 - 1940 Difference (6)
Core						
To Core						
Metro to Metro	.2569	.2569	0.0000	.4327	.4327	0.0000
Metro to Nonmetro	.1416	.3659	-.2243	.2361	.3795	-.1434
Nonmetro to Metro	.3858	.1615	.2243	.4397	.2963	.1434
Nonmetro to Nonmetro	.2425	.2425	0.0000	.1783	.1783	0.0000
To Upward Transitional						
Metro to Metro	.1951	.2166	-.0215	.5209	.4882	.0327
Metro to Nonmetro	.0050[a]	.2987	-.2937	.4595	.6979	-.2384
Nonmetro to Metro	.2581	.0553	.2028	.4705	.2944	.1761
Nonmetro to Nonmetro	.1432	.2126	-.0694	.5484	.6434	-.0950
Upward Transitional						
To Core						
Metro to Metro	.2179	.1964	.0215	.3234	.3561	-.0327
Metro to Nonmetro	.0954	.2982	-.2028	.1161	.2922	-.1761
Nonmetro to Metro	.1944	-.0993	.2937	.3230	.0846	.2385
Nonmetro to Nonmetro	.1054	.0360	.0694	.1413	.0463	.0950
To Upward Transitional						
Metro to Metro	.2571	.2571	0.0000	.3729	.3729	0.0000
Metro to Nonmetro	.1043	.3765	-.2722	.2640	.5351	-.2711
Nonmetro to Metro	.3358	.0636	.2722	.4344	.1633	.2711
Nonmetro to Nonmetro	.1516	.1516	0.0000	.2070	.2070	0.0000

[a]Not twice the size of it's standard error.

Table A1. Multiple Partial Additive Log Odds of Mirgants and Nonmigrants having completed one or more years of college by residence five years ago and current residents: 1935-40 and 1975-80

Residence 5 Years Ago		CURRENT RESIDENCE							
		CORE				UPWARD TRANSITIONAL			
		Metro		Nonmetro		Metro		Nonmetro	
		Migrant	Nonmigrant	Migrant	Nonmigrant	Migrant	Nonmigrant	Migrant	Nonmigrant
	Origin	.3491	-.0836	.1525	-.0836	.4373	-.0836	.3759	-.0836
1935-40	Destination	.3491	-.0836	.1525	-.2270	.4373	-.0509	.3759	-.3220
Metro									
	Origin	.3071	.0381	.1797	.0381	.2332	.0381	.0431	.0381
1975-80	Destination	.3071	.0381	.1797	-.1862	.2332	.0166	.0431	-.2556
CORE									
	Origin	.2127	-.2270	-.0487	-.2270	.2435	-.2270	.3214	-.2270
1935-40	Destination	.2127	-.0836	-.0487	-.2270	.2435	-.0509	.3214	-.3220
Nonmetro									
	Origin	.1996	-.1862	.0563	-.1862	.0719	-.1862	-.0430	-.1862
1975-80	Destination	.1996	.0381	.0563	-.1862	.0719	.0166	-.0430	-.2556
	Origin	.2725	-.0509	.0652	-.0509	.3220	-.0509	.2131	-.0509
1935-40	Destination	.2725	-.0836	.0652	-.2270	.3220	-.0509	.2131	-.3220
Metro									
	Origin	.2345	.0166	.1120	.0166	.2737	.0166	.1209	.0166
1975-80	Destination	.2345	.0381	.1120	-.1862	.2737	.0166	.1209	-.2556
UPWARD TRANSITIONAL									
	Origin	.0010[a]	-.3220	-.1807	-.3220	.1124	-.3220	-.1150	-.3220
1935-40	Destination	.0010[a]	-.0836	-.1807	-.2270	.1124	-.0509	-.1150	-.3220
Nonmetro									
	Origin	-.0612	-.2556	-.1502	-.2556	.0802	-.2556	-.1040	-.2556
1975-80	Destination	-.0612	.0381	-.1502	-.1862	.0802	.0166	-.1040	-.2556

[a]Coefficient is not twice the size of its standard error.

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